

**What is claimed is:**

1. An analytical method of blood using near infrared spectroscopy comprising the steps of:
  - applying light to the blood in a translucent blood collection tube or bag from  
5 the outside through the blood collection tube or bag;
  - detecting diffusely reflected light, diffusely transmitted light, or diffusely transmitted and reflected light from the blood in the blood collection tube or bag by an optical sensor to measure a near infrared absorption spectrum of the blood; and
  - replacing the measured value with a value obtained from a calibration equation  
10 which has been made in advance from a spectrum measured using the same method as above, thereby determining object characteristics of the blood.
2. The analytical method of blood according to claim 1, wherein the wavelength of near infrared light applied to the blood in the blood collection tube or bag is 700nm - 1100nm.
- 15 3. The analytical method of blood according to claim 1, wherein the calibration equation is made by a chemometrics technique such as multiple linear regression (MLR), principal component regression (PCR) and PLS regression.
4. An analytical apparatus of blood comprising:
  - a block provided with a housing portion for a translucent blood collection tube  
20 or bag;
  - a near infrared apparatus provided with a spectroscope for dispersing near infrared light from and an optical sensor for detecting the near infrared light from a source of light or a light from a sample;
  - light conduction means for conducting the near infrared light emitted from the  
25 light source or the spectroscope to the blood collection tube or bag within the housing portion and for conducting, directly or through the spectroscope, diffusely reflected light, diffusely transmitted light, or diffusely transmitted and reflected light from the blood within the blood collection tube or bag to the optical sensor; and
  - control means for outputting a measurement command of a spectrum to the  
30 near infrared apparatus and for replacing the measured spectrum with a value obtained from a calibration equation which has been made in advance, thereby computing object characteristics of the blood to be measured.
5. The analytical apparatus of blood according to claim 4, wherein a white light

source such as a tungsten halogen lamp is used as the light source, and a diode array is used as the optical sensor.

6. The analytical apparatus of blood according to claim 4, wherein the monochromatic near infrared light is used as the light source, and a silicon detector or a lead sulfide detector is used as the optical sensor.

7. The analytical apparatus of blood according to claim 4, wherein the light conduction means is an optical fiber or an optical fiber bundle.

8. The analytical apparatus of blood according to claim 4, wherein the block is provided with a temperature control means for stabilizing the blood within the blood collection tube or bag at a predetermined temperature.

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